

What is claimed is:

- 1) A computer-implemented system for determining time-phased product sales forecasts and projected replenishment shipments for a retail store supply chain using product sales history records generated by retail stores in the supply chain, the system comprising:
 - a) a forecasting system that determines projected sales of a first plurality of products for a retail store in the supply chain using the product sales history records for said retail store, wherein said first plurality of products is a subset of a second plurality of products that is larger than said first plurality of products and said projected sales are determined in accordance with a first benchmark;
 - b) a replenishment system that determines first projected replenishment shipments of products to said retail store from a first entity in the retail store supply chain using said projected sales determined by said forecasting system, wherein said first projected replenishment shipments are determined in accordance with said first benchmark; and
 - c) wherein said first benchmark comprises determining (i) said projected sales for one year in the future in a first time period and (ii) said first projected replenishment shipments for one year in the future in a second time period, when said first plurality of products is 8,457 in number, said second plurality of products is 34,500 in number, the product sales history records are 720,000 in number, there is a net change for only said first plurality of products, and said projected sales and said first projected replenishment shipments are determined using a computer capable of executing, in either of said first time period and said second time period, no more than an equivalent number of instructions to what can be executed by a computer having (i) one X86 instruction set microprocessor rated at 866MHz, (ii) 192 megabytes of transient memory and (iii) a hard drive having a disk speed of 7200 rpms, in either of said first time period and said second time period, wherein if said forecasting system and said replenishment system are caused to operate in accordance with said first benchmarks at least one of said first time period and second time period is less than 30 minutes.

- 2) A system according to claim 1, wherein at least one of said first time period and said second time period is 6 minutes or less.
- 3) A system according to claim 1, wherein each of said first time period and said second time period is less than 30 minutes.
- 4) A system according to claim 1, wherein each of said first time period and said second time period is less than 6 minutes.
- 5) A computer-implemented forecasting system for determining time-phased product sales forecasts for a retail store supply chain using product sales data generated by retail stores in the chain and as a function of changes in date, relative to preceding years, of a holiday that impacts shopping patterns.
- 6) A computer-implemented forecasting system according to claim 5, wherein said system additionally determines said forecasts by smoothing product demand except during a specified time period proximate a holiday that affects shopping patterns.
- 7) A computer-implemented forecasting system for determining time-phased product sales forecasts for a retail store supply chain using product sales data generated by retail stores in the chain and by smoothing product demand except during a specified time period proximate a holiday that affects shopping patterns.
- 8) A computer-implemented forecasting system for determining time-phased product sales forecasts for a retail store supply chain using product sales data generated by retail stores in the chain and by determining said projected sales within a first time period by allocating greater projected sales to certain days within said first time period, further wherein said forecasting system includes an override for reallocating said greater projected sales to selected days within said first time period that are proximate a holiday where increased sales are expected to occur based on proximity of said selected days to the holiday.

- 9) A system according to claim 8, where said first time period is a week.
- 10) A system according to claim 8, wherein said first time period is a number of days less than seven.
- 11) A computer-implemented forecasting system for determining time-phased product sales forecasts for a retail store supply chain using product sales data generated by retail stores in the chain and by grouping selected different products together and treating them as a single product.
- 12) A computer-implemented replenishment system for determining time-phased projected replenishment shipments for a retail store supply chain using projected sales data for retail stores in the chain generated by a forecasting system, wherein the replenishment system groups selected products together and treats them as a single product.
- 13) A system according to claim 12, wherein said replenishment system (i) determines first projected replenishment shipments for said single product for a first entity in the retail store supply chain and (ii) determines second projected replenishment shipments of said single product to said first entity by a second entity in the retail store supply chain using said first projected replenishment shipments.
- 14) A computer-implemented system for determining time-phased product sales forecasts for a retail store supply chain using product sales data generated by retail stores in the chain and by generating said sales forecasts for a product during a promotional period for said product on a daily basis using daily sales data generated during said promotional period for said product.
- 15) A system according to claim 14, wherein said system determines planned replenishment shipments to the retail stores in the chain using said forecasts, further wherein said replenishment shipments for a product to be promoted during a promotional period are

determined using safety stock levels before said promotional period and are determined using safety time levels during said promotional period.

- 16) A system according to claim 14, wherein said system revises said forecasts for a product during said promotional period based on a combination of (a) an original promotional forecast for said product and (b) sales history data obtained during said promotional period for said product.
- 17) A system according to claim 16, wherein said original promotional forecast and said sales history data are each weighted.
- 18) A system according to claim 16, wherein new projected sales for a product are determined by the system using a weighted combination of said original promotional forecast and said sales history data.
- 19) A system according to claim 14, wherein said sales forecasts for a product are generated during a promotional period for said product more frequently than a daily basis using sales data generated during said promotional period for said product more frequently than daily.
- 20) A computer-implemented system for determining time-phased product sales forecasts for a retail store supply chain using product sales data generated by retail stores in the chain, wherein said system stores a product sales forecast for a first time period and stores a portion of said forecast for a second time period that is shorter than said first time period
- 21) A system according to claim 20, further wherein said system stores a portion of said product sales forecast in a third time period that is shorter than the first time period and shorter than the second time period.

- 22) A system according to claim 20, further comprising persistent memory and transient memory, wherein said forecast is stored in said persistent memory and said portion of said forecast for said second time period is created in said transient memory.
- 23) A system according to claim 20, wherein said system stores said portion of said forecast so that said second time period includes at least one third time period and at least one fourth time period, said fourth time period being shorter than said third time period.
- 24) A system according to claim 20, wherein said third time period is a day and said fourth time period is an hour.
- 25) A system according to claim 20, wherein said system stores said portion so that said second time period includes a plurality of days for a most-current time portion of said second time period and a plurality of weeks for a next-most-current time portion of said second time period.
- 26) A system according to claim 20, wherein said system stores said portion so that said second time period includes a plurality of hours for a most-current time portion of said second time period and a plurality of days for a next-most-current time portion of said second time period and a plurality of weeks for a next-most-current time portion of said second time period.
- 27) A system according to claim 20, wherein said forecast for said first time period is stored in a database having a plurality of rows, at least one of said rows containing a forecast for a first product for a first time interval and at least one other of said rows containing a forecast for a second product for a second time interval that is longer than said first time interval.
- 28) A system according to claim 20, wherein said first product sells in higher volumes than said second product.

29) A system according to claim 20, wherein said forecast for said first time period is stored in a database having a plurality of rows, at least one of said rows containing a forecast for a first product for a first time interval and at least one other of said rows containing a forecast for said first product for a second time interval that is longer than said first time interval.

30) A system according to claim 20, wherein said forecast for said first time period is stored in a database having a plurality of rows, wherein one of said rows contains forecasts for a first product for a series of first time intervals and for a series of second time intervals, wherein said second time intervals are each longer than said first time intervals.

31) A system according to claim 20, wherein said forecast for said first time period is stored in a database having a plurality of rows, wherein a portion of said plurality of said rows contains forecasts for a first product for a series of first time intervals and for a series of second time intervals, wherein said second time intervals are each longer than said first time intervals and said portion has fewer rows than the sum of said first time intervals and said second time intervals.